WHAT IS CLAIMED IS

1. An image processing method for correcting image distortions caused by oblique imaging in which an original image of an object on an object plane is taken from different oblique directions to obtain a plurality of partially overlapping images, comprising the steps of:

determining a feature point of one of the plurality of partially overlapping images corresponding to a common location of the original image, shared by the plurality of partially overlapping images, and determining a matched point of one of the other partially overlapping images corresponding to the feature point so that a direction of the object plane is calculated based on the feature point and the matched point;

selecting one of the plurality of partially overlapping images as a standard image whose image distortions are to be corrected; and

generating a distortion-corrected image on a projection plane by projecting the standard image onto the projection plane based on the direction of the object plane such that image distortions in the standard image are eliminated.

2. The image processing method according to claim 1 wherein in said selecting step, one of the plurality of partially overlapping images is automatically selected as the standard based on a ratio of an area of an object region to an entire area of each image.

3. The image processing method according to claim 1 wherein in said selecting step, one of the plurality of partially overlapping images is automatically selected as the standard based on a direction of a straight-line pattern contained in each image.

4. The image processing method according to claim 1 wherein in said selecting step, one of the plurality of partially overlapping images is automatically selected as the standard based on the feature point and the matched point determined by said determining step.

5. The image processing method according to claim 1, wherein

in said selecting step, one of the plurality of partially overlapping images is automatically selected as the standard image based on a calculated direction of the object plane for each of the partially overlapping images.

6. An image processing method for correcting image distortions caused by oblique imaging in which an original image of an object on an object plane is taken from different oblique directions to obtain a plurality of partially overlapping images, comprising the steps of:

determining a feature point of one of the plurality of partially overlapping images corresponding to a common location of the original image, shared by the plurality of partially overlapping images, and determining a matched point of one of the other partially overlapping images corresponding to the feature point of said one of the plurality of partially overlapping images so that a direction of the object plane is calculated based on the feature point and the matched point;

selecting one of the plurality of partially overlapping images as a standard image that contains a smallest amount of image distortions among the plurality of partially overlapping images; and

combining the other partially overlapping images, which are projected onto an image surface of the standard image with respect to each of the other partially overlapping images, so that a composite image is generated on the image surface so as to correct image distortions in the standard image.

7. An image processing apparatus for correcting image distortions caused by oblique imaging in which an original image of an object on an object plane is taken from different oblique directions to obtain a plurality of partially overlapping images, comprising:

a correspondence detecting unit determining a feature point of one of the plurality of partially overlapping images corresponding to a common location of the original image, shared by the plurality of partially overlapping images, and determining a matched point of one of the other partially overlapping images corresponding to the feature point of said one of the plurality of partially overlapping images so that a direction of the object plane is calculated based on the feature point and the matched point;

a standard image setting unit selecting one of the plurality of partially overlapping images as a standard image that contains a

smallest amount of image distortions among the plurality of partially overlapping images; and

an image composition unit combining the other partially overlapping images, which are projected onto an image surface of the standard image with respect to each of the other partially overlapping images, so that a composite image is generated on the image surface so as to correct image distortions in the standard image.

8. The image processing apparatus according to claim 7, wherein said standard image setting unit is configured such that a user is required to select the standard image when taking the original image from one of the oblique directions, and wherein said image processing apparatus further comprises a notification unit which notifies the user that the standard image is currently taken.

9. An image processing apparatus for correcting image distortions caused by oblique imaging in which an original image of an object on an object plane is taken from different oblique

directions to obtain a plurality of partially overlapping images, comprising:

a correspondence detecting unit determining a feature point of one of the plurality of partially overlapping images corresponding to a common location of the original image, shared by the plurality of partially overlapping images, and determining a matched point of one of the other partially overlapping images corresponding to the feature point so that a direction of the object plane is calculated based on the feature point and the matched point;

a standard image setting unit selecting one of the plurality of partially overlapping images as a standard image whose image distortions are to be corrected; and

a distortion correcting unit generating a distortion-corrected image on a projection plane by projecting the standard image onto the projection plane based on the direction of the object plane such that image distortions in the standard image are eliminated.

10. The image processing apparatus according to claim 9, further comprising a plurality of imaging units which respectively input the plurality of partially overlapping images that are generated by taking the original image from the oblique directions.

11. The image processing apparatus according to claim 9, wherein said standard image setting unit is configured such that one of the plurality of partially overlapping images is automatically selected as the standard based on a ratio of an area of an object region to an entire area of each image.

12. The image processing apparatus according to claim 9, wherein said standard image setting unit is configured such that one of the plurality of partially overlapping images is automatically selected as the standard based on a direction of a straight-line pattern contained in each image.

13. The image processing apparatus according to claim 9, wherein said standard image setting unit is configured such that one of the plurality of partially overlapping images is automatically selected as the standard based on the feature point and the matched point determined by said correspondence detecting unit.

14. The image processing apparatus according to claim 9, wherein said standard image setting unit is configured such that one of the plurality of partially overlapping images is automatically selected as the standard image based on a calculated direction of the object plane for each of the partially overlapping images.

15. A computer-readable storage medium storing program code instructions for causing a computer to execute an image distortion correction processing to correct image distortions caused by oblique imaging in which an original image of an object on an object plane is taken from different oblique directions to obtain a plurality of partially overlapping images, comprising:

first program code means for causing the computer to determine a feature point of one of the plurality of partially overlapping images corresponding to a common location of the original image, shared by the plurality of partially overlapping images, and to determine a matched point of one of the other partially overlapping images corresponding to the feature point so that a direction of the object plane is calculated based on the feature point and the matched point;

second program code means for causing the computer to select one of the plurality of partially overlapping images as a standard image whose image distortions are to be corrected; and

third program code means for causing the computer to generate a distortion-corrected image on a projection plane by projecting the standard image onto the projection plane based on the direction of the object plane such that image distortions in the standard image are eliminated.

16. A computer-readable storage medium storing program code instructions for causing a computer to execute an image distortion correction processing to correct image distortions caused by oblique imaging in which an original image of an object on an object plane is taken from different oblique directions to obtain a plurality of partially overlapping images, comprising:

first program code means for causing the computer to determine a feature point of one of the plurality of partially overlapping images corresponding to a common location of the original image, shared by the plurality of partially overlapping images, and to determine a matched point of one of the other partially overlapping images corresponding to the feature point of said one of the plurality of partially overlapping images so that a

direction of the object plane is calculated based on the feature point and the matched point;

second program code means for causing the computer to select one of the plurality of partially overlapping images as a standard image that contains a smallest amount of image distortions among the plurality of partially overlapping images; and

third program code means for causing the computer to combine the other partially overlapping images, which are projected onto an image surface of the standard image with respect to each of the other partially overlapping images, so that a composite image is generated on the image surface so as to correct image distortions in the standard image.